

# Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics)

By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy



Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy

#### Praise for the First Edition

"...extremely well written...a comprehensive and up-to-date overview of this important field." – *Journal of Environmental Quality* 

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition provides comprehensive coverage of recent advancements in microarray data analysis. A cutting-edge guide, the Second Edition demonstrates various methodologies for analyzing data in biomedical research and offers an overview of the modern techniques used in microarray technology to study patterns of gene activity.

The new edition answers the need for an efficient outline of all phases of this revolutionary analytical technique, from preprocessing to the analysis stage. Utilizing research and experience from highly-qualified authors in fields of data analysis, *Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition* features:

- A new chapter on the interpretation of findings that includes a discussion of signatures and material on gene set analysis, including network analysis
- New topics of coverage including ABC clustering, biclustering, partial least squares, penalized methods, ensemble methods, and enriched ensemble methods
- Updated exercises to deepen knowledge of the presented material and provide readers with resources for further study

The book is an ideal reference for scientists in biomedical and genomics research fields who analyze DNA microarrays and protein array data, as well as statisticians and bioinformatics practitioners. Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition is also a useful text for graduate-level courses on statistics, computational biology, and bioinformatics.

**Download** Exploration and Analysis of DNA Microarray and Oth ...pdf

Read Online Exploration and Analysis of DNA Microarray and O ...pdf

## **Exploration and Analysis of DNA Microarray and Other High- Dimensional Data (Wiley Series in Probability and Statistics)**

By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in **Probability and Statistics**) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy

Praise for the First Edition

"...extremely well written...a comprehensive and up-to-date overview of this important field." – Journal of Environmental Quality

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition provides comprehensive coverage of recent advancements in microarray data analysis. A cutting-edge guide, the Second Edition demonstrates various methodologies for analyzing data in biomedical research and offers an overview of the modern techniques used in microarray technology to study patterns of gene activity.

The new edition answers the need for an efficient outline of all phases of this revolutionary analytical technique, from preprocessing to the analysis stage. Utilizing research and experience from highly-qualified authors in fields of data analysis, *Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition* features:

- A new chapter on the interpretation of findings that includes a discussion of signatures and material on gene set analysis, including network analysis
- New topics of coverage including ABC clustering, biclustering, partial least squares, penalized methods, ensemble methods, and enriched ensemble methods
- Updated exercises to deepen knowledge of the presented material and provide readers with resources for further study

The book is an ideal reference for scientists in biomedical and genomics research fields who analyze DNA microarrays and protein array data, as well as statisticians and bioinformatics practitioners. *Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition* is also a useful text for graduate-level courses on statistics, computational biology, and bioinformatics.

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in

#### Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy Bibliography

Sales Rank: #2556977 in BooksPublished on: 2014-03-17Original language: English

• Number of items: 1

• Dimensions: 9.50" h x .90" w x 6.30" l, .0 pounds

• Binding: Hardcover

• 344 pages

**▲ Download** Exploration and Analysis of DNA Microarray and Oth ...pdf

Read Online Exploration and Analysis of DNA Microarray and O ...pdf

Download and Read Free Online Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy

#### **Editorial Review**

#### Review

"Featuring new information on interpretation of findings, class prediction, ABC clustering, limma for mixed models, biclustering, mass spectrometry, tracking Spearman correlations, and more, this extremely well written" (Journal of Environmental Quality) book is a choice reference for scientists, teachers, and students interested in DNA data analysis." (*Zentralblatt MATH*, 1 October 2014)

"In summary this is an excellent text for both life scientist and computer/mathematicians. Highly recommended." (*Scientific Computing*, 1 August 2014)

From the Back Cover

#### Praise for the First Edition

"... extremely well written ... a comprehensive and up-to-date overview of this important field."
—Journal of Environmental Quality

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition provides comprehensive coverage of recent advancements in microarray data analysis. A cutting-edge guide, the Second Edition demonstrates various methodologies for analyzing data in biomedical research and offers an overview of the modern techniques used in microarray technology to study patterns of gene activity.

The new edition answers the need for an efficient outline of all phases of this revolutionary analytical technique, from preprocessing to the analysis stage. Utilizing research and experience from highly-qualified authors in fields of data analysis, *Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition* features:

- A new chapter on the interpretation of findings that includes a discussion of signatures and material on gene set analysis, including network analysis
- New topics of coverage including ABC clustering, biclustering, partial least squares, penalized methods, ensemble methods, and enriched ensemble methods
- Updated exercises to deepen knowledge of the presented material and provide readers with resources for further study

The book is an ideal reference for scientists in biomedical and genomics research fields who analyze DNA microarrays and protein array data, as well as statisticians and bioinformatics practitioners. *Exploration and Analysis of DNA Microarray and Other High-Dimensional Data, Second Edition* is also a useful text for graduate-level courses on statistics, computational biology, and bioinformatics.

About the Author

**DHAMMIKA AMARATUNGA, PhD,** is Senior Director and Janssen Fellow in the Nonclinical Statistics and Computing Department at Janssen R&D, a Johnson & Johnson pharmaceutical company. His research interests include analysis of large multivariate data sets generated by functional genomics research, robust and resistant statistical methods, linear and nonlinear modeling, and biostatistics.

**JAVIER CABRERA, PhD,** is Full Professor in the Department of Statistics at Rutgers University. He has published over 100 articles in his areas of research interest, which include DNA microarray, data mining of biopharmaceutical databases, computer vision, statistical computing and graphics, robustness, and biostatistics. He has also lectured at Cold Spring Harbor Laboratory, The Hong Kong University of Science and Technology, and National University of Singapore.

**ZIV SHKEDY, PhD,** is Associate Professor and Statistical Consultant in the Interuniversity Institute for Biostatistics and Statistical Bioinformatics, Center for Statistics at Hasselt University, Belgium. He has published numerous journal articles on the topics of clinical and non-clinical trials, modeling infectious disease data, dose-response analysis, Bayesian modeling, bioinformatics, and analysis of gene expression data.

#### **Users Review**

#### From reader reviews:

#### Mary Ayala:

Reading can called thoughts hangout, why? Because if you find yourself reading a book specially book entitled Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) your brain will drift away trough every dimension, wandering in most aspect that maybe mysterious for but surely can be your mind friends. Imaging just about every word written in a guide then become one type conclusion and explanation which maybe you never get ahead of. The Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) giving you one more experience more than blown away your mind but also giving you useful info for your better life with this era. So now let us show you the relaxing pattern at this point is your body and mind is going to be pleased when you are finished studying it, like winning a. Do you want to try this extraordinary investing spare time activity?

#### Vincent Ashworth:

In this time globalization it is important to someone to find information. The information will make someone to understand the condition of the world. The healthiness of the world makes the information simpler to share. You can find a lot of sources to get information example: internet, magazine, book, and soon. You can observe that now, a lot of publisher this print many kinds of book. Typically the book that recommended for your requirements is Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) this guide consist a lot of the information on the condition of this world now. That book was represented how does the world has grown up. The words styles that writer use to explain it is easy to understand. Often the writer made some analysis when he makes this book. Here is why this book suited all of you.

#### **Logan Merritt:**

This Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) is fresh way for you who has intense curiosity to look for some information as it relief your hunger details. Getting deeper you in it getting knowledge more you know otherwise you who still having little bit of digest in reading this Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) can be the light food for you personally because the information inside this kind of book is easy to get by anyone. These books develop itself in the form which can be reachable by anyone, yes I mean in the e-book type. People who think that in book form make them feel tired even dizzy this publication is the answer. So there is absolutely no in reading a reserve especially this one. You can find actually looking for. It should be here for you. So , don't miss it! Just read this e-book sort for your better life and also knowledge.

#### Jackie Lund:

Reading a e-book make you to get more knowledge from the jawhorse. You can take knowledge and information from a book. Book is written or printed or illustrated from each source that filled update of news. On this modern era like today, many ways to get information are available for a person. From media social similar to newspaper, magazines, science e-book, encyclopedia, reference book, new and comic. You can add your understanding by that book. Are you ready to spend your spare time to spread out your book? Or just looking for the Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) when you desired it?

Download and Read Online Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy #26HRO8ZA59X

### Read Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy for online ebook

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy books to read online.

Online Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy ebook PDF download

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy Doc

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy Mobipocket

Exploration and Analysis of DNA Microarray and Other High-Dimensional Data (Wiley Series in Probability and Statistics) By Dhammika Amaratunga, Javier Cabrera, Ziv Shkedy EPub